19. (new) The method according to claim 16, wherein the colorimetric test in step (b) is carried out on a blot left by the transformed explants on an agar medium or on a membrane.

20. (new) The method according to claim 16, wherein the selection in step (b) is carried out in the presence of a saturating concentration of substrate.

A2 cont

21. (new) The method according to claim 20, wherein the saturating concentration of substrate is between 5 and 50 mM.

22. (new) The method according to claim 16, wherein the colorimetric test in step (c) is carried out on a sample of plant tissue from the plantlets obtained.

23. (new) The method according to claim 16 , wherein the gene of interest is a gene of interest which is expressed at a late stage of development.

24. (new) The method according to claim 16, wherein the plant cells are plant cells obtained from tomato or from a crop selected from the group consisting of rape, cauliflower, sunflower, wheat, corn, barley and tobacco.

25. (new) The method according to claim 16, wherein the plant cells are cells of cotyledons, hypocotyls or floral scapes.

26. (new) The method according to claim 16, wherein the plant cells do not endogenously produce oxalate oxidase.

27. (new) The method according to claim 16, wherein the

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protein of interest is an endochitinase.

28. (new) Plant parts and/or plants obtained by the method according to claim 16.

29. (new) Plant parts and/or plants according to claim 28, which are selected from the group consisting of rape, cauliflower, sunflower, wheat, corn, barley, tobacco and tomato.

A2 cont

30. (new) The method of claim 16, further comprising expressing and purifying the protein of interest.

31. (new) The method of claim 16, wherein the plant cells are transformed using an expression vector comprising a promoter, wherein said promoter is selected from the group consisting of the Cauliflower Mosaic Virus (CaMV) 35S promoter, the superpromoter chimeric promoter SPP, the rice actin promoter, the barley HMGW promoter, the PCRU radish cruciferin gene promoter, the corn γ-zein gene promoter, the *Arabidopsis* PGEA1 promoter and the *Arabidopsis* PGEA6 promoter.

32. (new) The method of claim 16, wherein the expression of the gene encoding a protein of interest confers resistance to disease caused by an organism selected form the group consisting of fungi, bacteria, arthropods and nematodes.

33. (new) The method of claim 16, wherein the gene encoding a protein of interest gene encodes a protein having oxidase activity.

C

34. (new) The method of claim 33, wherein the protein having oxidase activity is selected from the group consisting of

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